



Navy S&T Focus

***National Defense Industrial Association
Charleston SC
Apr 19-21 2005***

CAPT J.C. Kamp
Assistant Chief of Naval
Research



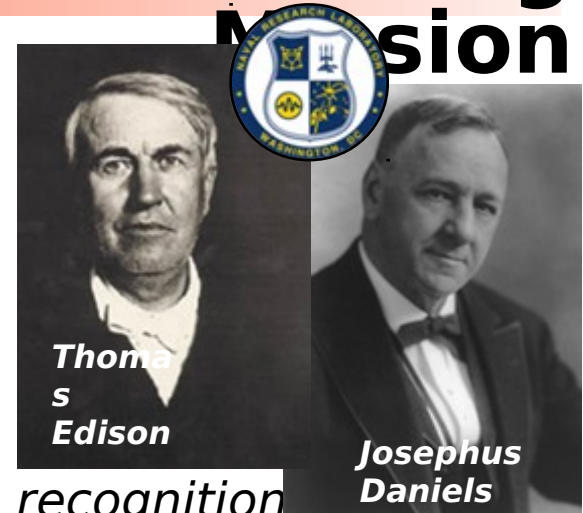
Objectives

- Provide overview of ONR
- Discuss some Naval S&T foci
- Note some opportunities



Naval Research: An Enduring and Evolving Mission

Naval Research Laboratory (Appropriations Act, 1916): “[Conduct] exploratory and research work ... necessary... for the benefit of Government service, including the construction, equipment, and operation of a laboratory....”



Office of Naval Research (Public Law 588, 1946):

“... plan, foster, and encourage scientific research in recognition of the paramount importance as related to the maintenance of future naval power, and the preservation of national security.... ”

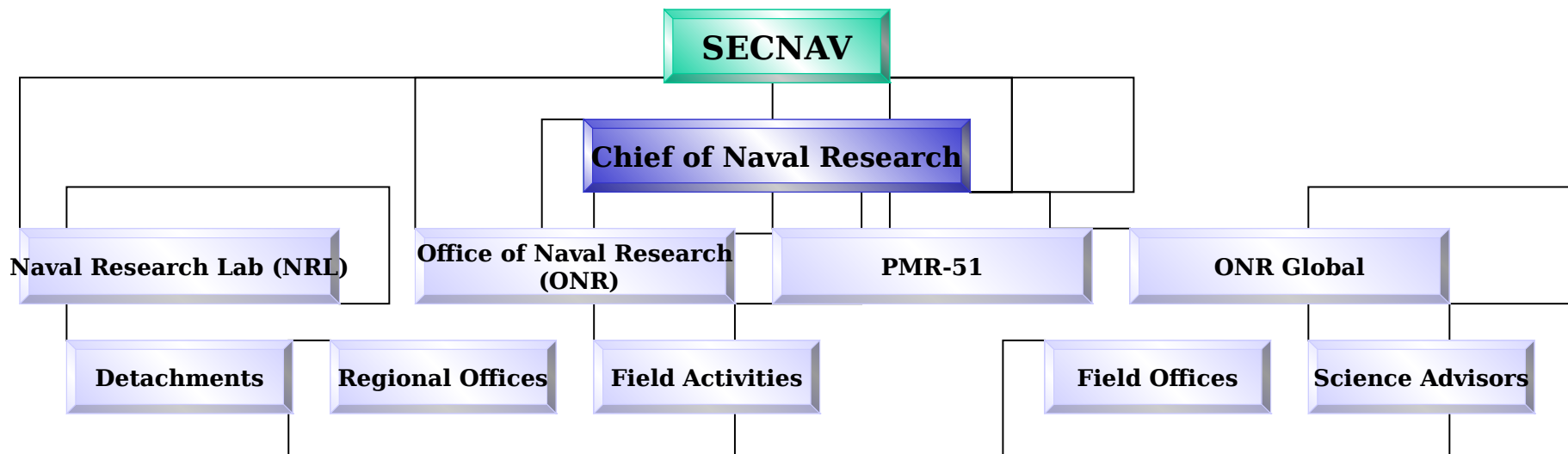


Transitioning S&T (Defense Authorization Act, 2001):

“...manage the Navy’s basic, applied, and advanced research to foster transition from S&T to higher levels of research, development, test, and evaluation.”



ONR Organization





Naval S&T in Context: FY 2006 President's Budget

\$126B

Secretary of the
Navy

Assistant Secretary of the Navy
Research, Development and Acquisition

Research and
Development

18.0B

Acquisition

31.3B

VCNO & ACMC

1.8B

Office of Naval
Research

Naval Research
Lab

16.2B

PEOs, Systems
Commands,
Warfare Centers

Basic Research
Applied Research
Advanced Tech.
Development

Test & Evaluation

DEM/Val

EMD

Op. Systems
Development

12 Program
Executive
Officers

5 Direct
Reporting Program
managers

6 Systems
Commands

Warfare Centers

54 Major
Program
managers

467 Program
managers

Aircraft
carriers
Combat ships

Submarines

Aircraft

Weapons systems

Ammunition

Combat boots



Objectives

- Provide overview of ONR
- Discuss some Naval S&T foci
- Note some opportunities



S&T Support to USMC in Iraq

- Challenges:
 - Improvised Explosive Devices (IEDs)
 - Persistent surveillance
 - Weapons location
 - Helicopter operations
 - Language support



OIF/OEF Medical Initiatives



Naval Combat Trauma
Registry (CTR)



“Ready-Heat” Thermal Blanket



USB Memory Devices For Medical Records



Tactical Field Care -
Tactical Combat Casualty Care (TC3)
Training CD

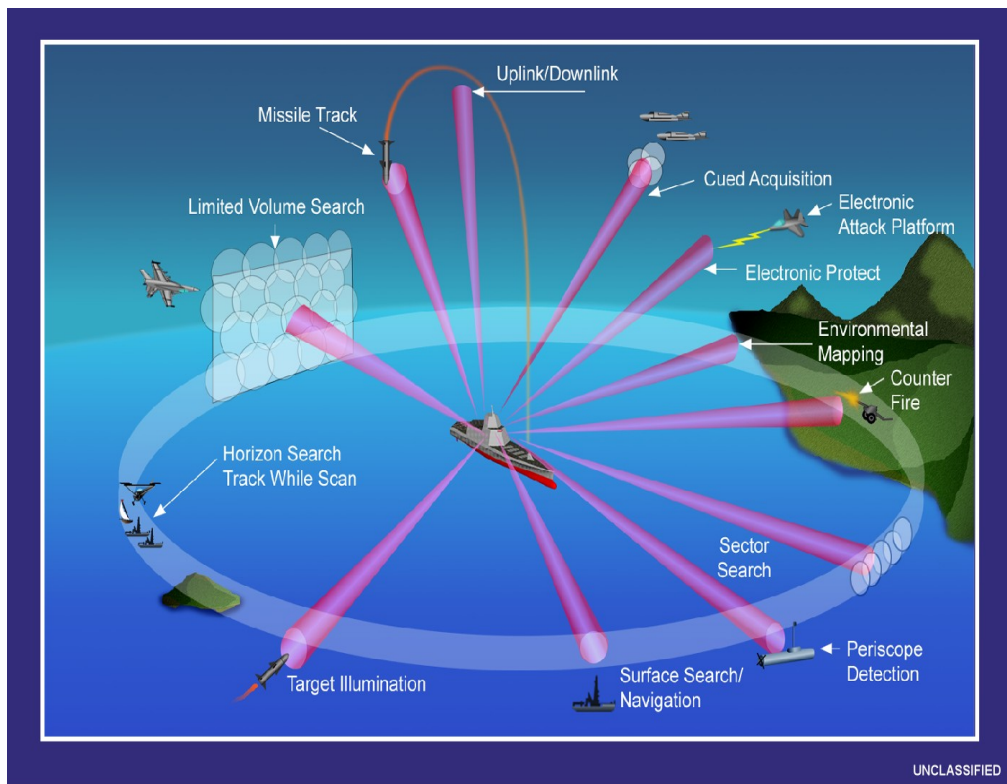


Information, Electronics and Surveillance (Code 31)

- Surveillance capabilities, communications, command and control
- New concepts for electronic devices
- Application of information sciences to complex problems including human-computer interaction
- Electronic warfare



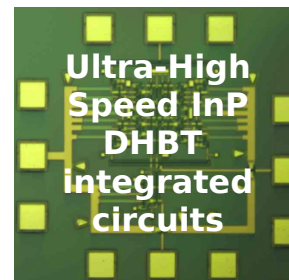
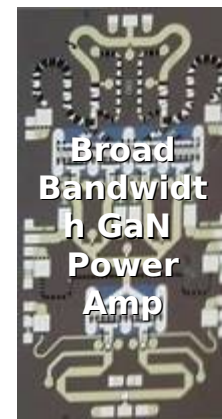
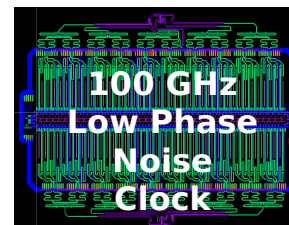
Advanced Multi-Function RF



ver. #3

SYS-201

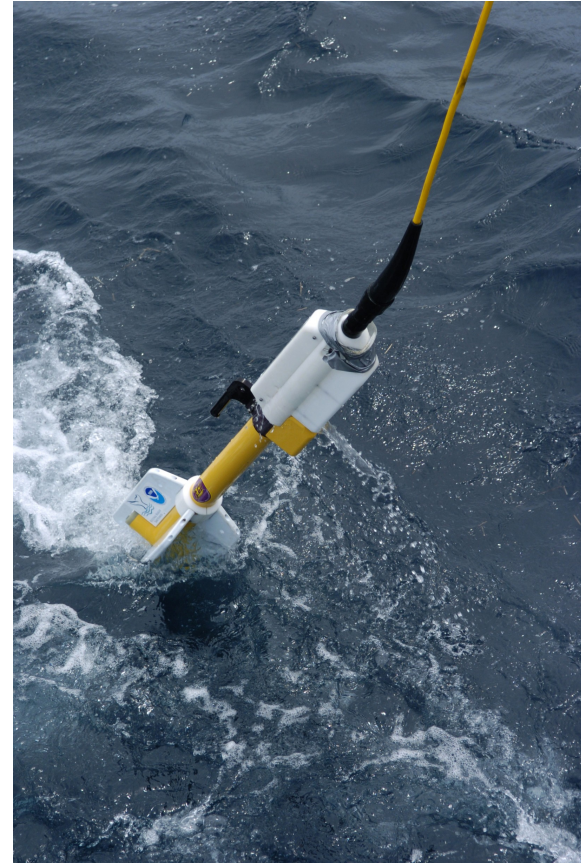
technologies to meet future radar requirements





Ocean, Atmosphere, and Space (**Code 32**)

- Battlespace Environments - (BSE)
- Anti-Submarine Warfare - (ASW)
- Mine Warfare - (MIW)
- Naval Special Warfare/Explosive Ordnance Disposal
- Advanced Force Operations



Autonomous Vehicles

Silver Fox in OIF



Crawlers in OEF



Letting robots do the dangerous work

***How they
cleared Um Qasr***



***Persistent
surveillance***





Engineering, Materials, and Physical Sciences (**Code 33**)

- Chemistry
- Physics
- Structural & functional materials
- Structural, solid, & fluid mechanics
- Propulsion
- Energetics
- And hull, mechanical
- & electrical systems



Explosive Resistant Coating





Human Systems (**Code 34**)

- Exploration programs at the leading edge of medical science
- Human performance
- Biotechnology
- Training and human factors
- Neural information processing
- Biorobotics

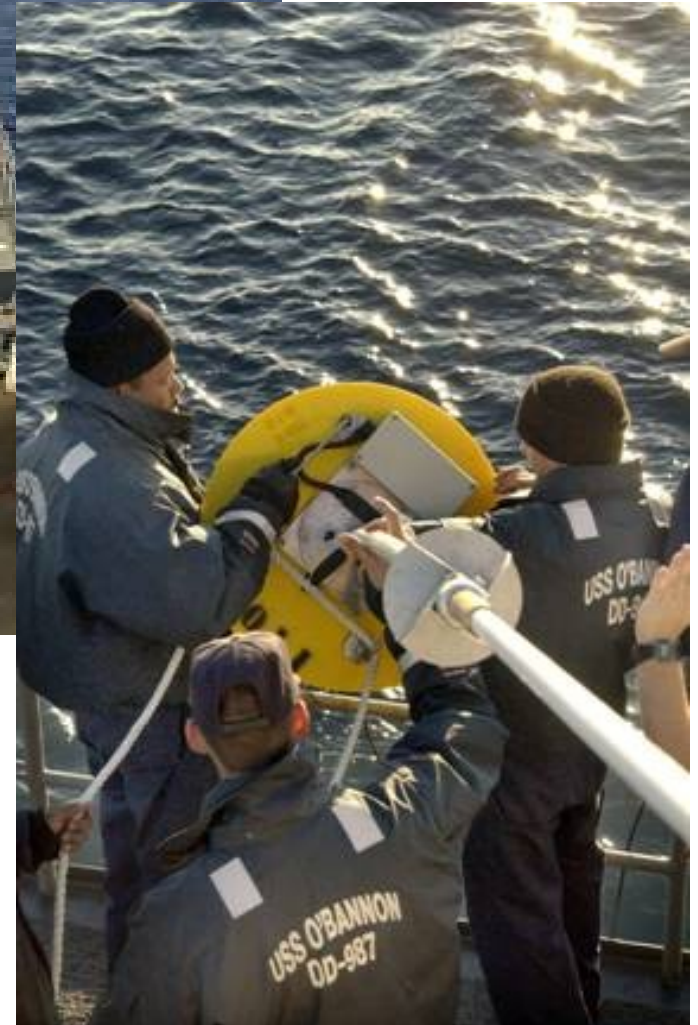




Virtual At Sea Training (VAST)



Realistic fire support training for the Navy-Marine Corps Team





Naval Expeditionary Warfare (**Code 35**)

- Aeronautics, avionics
- Propulsion, ballistics, warheads
- Missile guidance, seekers
- Parallel distributed processing
- Technology programs particularly associated with Marine Corps/ground combat applications

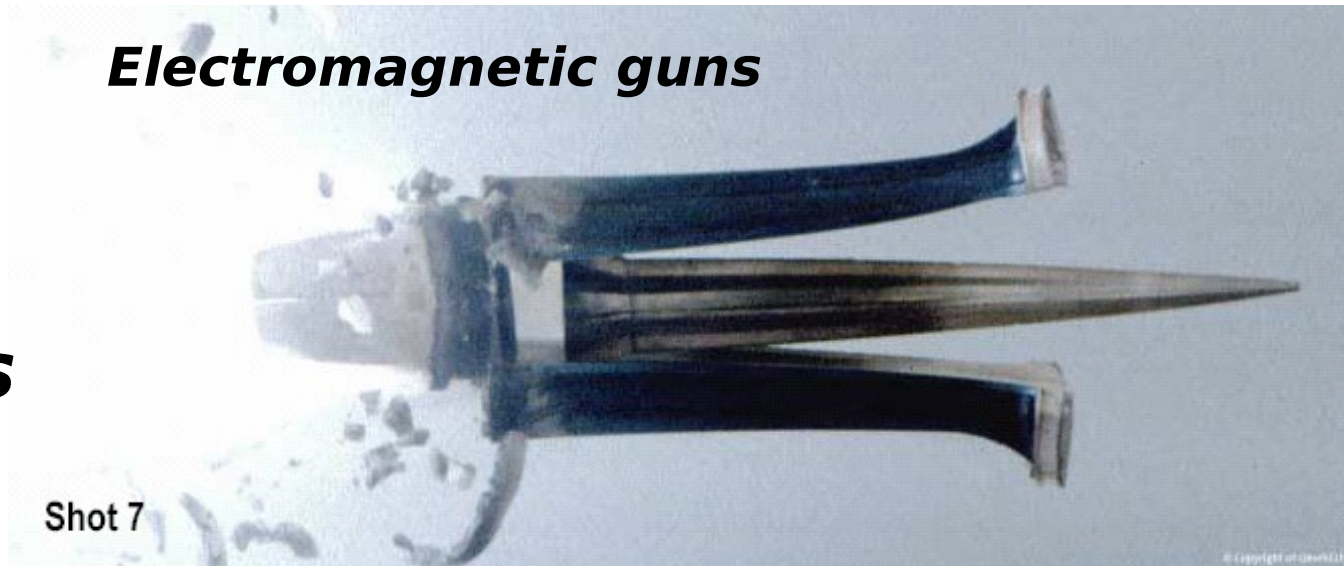


Hypersonic Strike

Speed kills

Electromagnetic guns

Shot 7



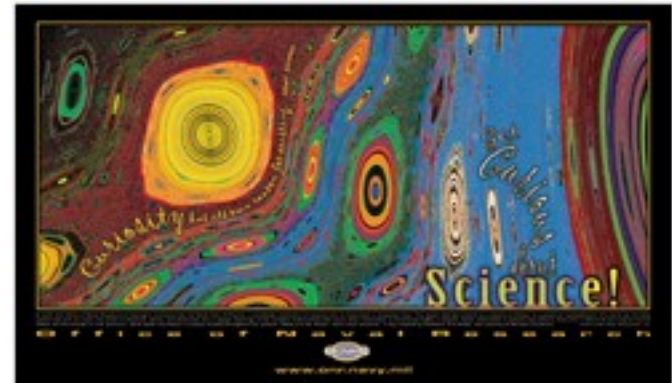
Hy-Fly





Industrial and Corporate Programs (**Code 36**)

- Interdisciplinary S&T
- Workforce renewal
- Industrial/academic outreach





ONR Global

- Ocean Atmosphere Space Sciences
- Naval Architecture HM&E
- Materials Science
- Sensors and Information Technology
- Force Protection/Anti Terrorism
- Biosciences
- Human Factors



Objectives

- Provide overview of ONR
- Discuss some Naval S&T foci
- **Note some opportunities**



ONR Broad Agency Announcements

- Where:
 - FEDBIZOPPS
www.fedbizopps.gov
 - ONR Webpage
www.onr.navy.mil/02/baa/
- Types:
 - Continuous/Open (1)
 - Specific Subject/Due Date (4)
 - Mix of Both

The screenshot shows the ONR Acquisition website. At the top, there is a navigation bar with links: Public, Acquisition, Students & Teachers, Military, Media, S&T, Home, Site Map, Resources, and Contact Us. Below this is a search bar with 'Site Search' and 'ONR Keyword' fields. The main content area is titled 'Contracts & Grants — Broad Agency Announcements (BAAs)'. It features a section for 'ONR's Long Range BAA' with a link to the 'Long Range Navy and Marine Corps Science & Technology Program' (BAA 05-001). Below this is a table of 'Currently Active BAAs'.

Due	BAA #	BAA Title
White Papers: August 31, 2005 Full Proposals: December 31, 2005	05-003	High Velocity Weapons Research, Including Electromagnetic EM Rail Gun Technologies in Medium to Large Caliber Direct and Indirect Gun Fire Systems. (PDF - 225 K)
Full Proposals: January 13, 2005	05-002	Fiscal Year 2005 ONR Young Investigator Program (PDF - 188 K) (Word - 135 K) • Appendix A (PDF - 18 K) (Word - 36 K)
October 29, 2004	FY2004 DEPSCoR	Defense Experimental Program To Stimulate Competitive Research (DEPSCoR) (PDF - 210 KB) (Word - 388 K)
White Papers: September 22, 2004 Full Proposals:	04-024	Research Tools Design Consortia (PDF - 467 K)

<http://www.onr.navy.mil/02/baa/>



Navy-Industry R&D Partnership Conference



Naval-Industry R&D Partnership Conference
26-29 July 2005

Enabling Naval Innovations to Win the Global War on TERRORISM

Pre-Conference Workshops

- Panel Sessions
- Breakout Sessions
- Open Innovation Marketplace
- Accommodations & Directions
- Overview / Past Conferences

Registration
Agenda

Ronald Reagan Building and International Trade Center, Washington, D.C.

The 2005 Naval Industry R&D Partnership Conference, Enabling Naval Innovations to Win the Global War on Terrorism, will promote the Navy/Marine Corps objective to achieve innovative solutions quickly to produce an unparalleled Naval Force for the global war on terrorism. The conference will provide attendees with expanded knowledge of and access to Naval requirements and technological solutions. The conference seeks to develop and promote professional relationships among government, industry and academia.

26-29 July 2005, Washington, DC



2005 SBIRs

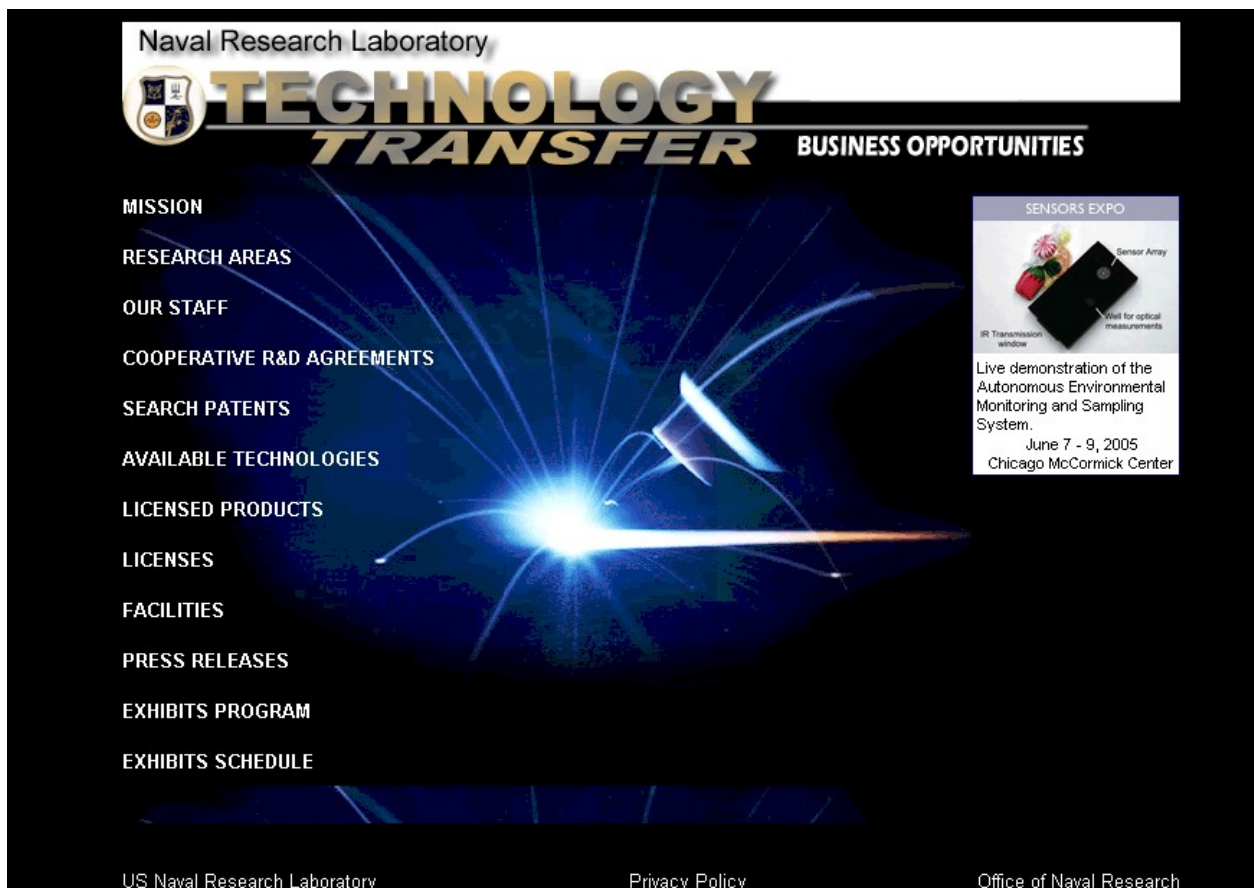


2-4 May 2005, Reston, VA

- www.dawnbreaker.com/forums/navy
- SBIR Solicitation 2005.2
 - release 2 May 2005; 15 Jun- 15 July 2005
- SBIR Solicitation 2005.3
 - release 1 Aug 2005; 15 Sep - 14 Oct 2005



NRL Tech Transfer

The screenshot shows the homepage of the Naval Research Laboratory's Technology Transfer website. The background is a dark blue space-themed image with a bright light source and radiating lines. On the left, a vertical menu lists various categories. At the top right, the text "Naval Research Laboratory" is above the "TECHNOLOGY TRANSFER" title, which is followed by "BUSINESS OPPORTUNITIES". A small inset box on the right highlights a "SENSORS EXPO" event, featuring an image of a sensor array and a well for optical measurements, with text describing a live demonstration of an autonomous environmental monitoring system held from June 7-9, 2005, at the Chicago McCormick Center. The footer contains three links: "US Naval Research Laboratory", "Privacy Policy", and "Office of Naval Research".

Naval Research Laboratory

TECHNOLOGY TRANSFER BUSINESS OPPORTUNITIES

- MISSION
- RESEARCH AREAS
- OUR STAFF
- COOPERATIVE R&D AGREEMENTS
- SEARCH PATENTS
- AVAILABLE TECHNOLOGIES
- LICENSED PRODUCTS
- LICENSES
- FACILITIES
- PRESS RELEASES
- EXHIBITS PROGRAM
- EXHIBITS SCHEDULE

SENSORS EXPO

IR Transmission window

Sensor Array

Well for optical measurements

Live demonstration of the Autonomous Environmental Monitoring and Sampling System.

June 7 - 9, 2005
Chicago McCormick Center

US Naval Research Laboratory Privacy Policy Office of Naval Research

<http://techtransfer.nrl.navy.mil/index.php>



Navy TECHMATCH



Site Search:

TECHMATCH

- Home
- Needs/Opportunities
- Licensable Patents
- Labs
- Calendar
- Success Stories
- Related Links
- Resources
- Contact Us
- Login
([Register Here](#))



Welcome to TechMatch. This site is designed to provide valuable information that will help you work more effectively with the DoD community. On this site, you will find Technology Needs, R&D Opportunities, Events, Laboratory Information, and Success Stories. Registered Users will benefit from receiving timely information in their selected technology areas. [Register Now](#)

★ Needs/Opportunities

- Browse TechNeeds
- Search TechNeeds
- Browse SBIR Opportunities
- Browse FedBiz Opportunities
- Search SBIR Opportunities
- Search FedBiz Opportunities

★ Patents

- Browse Patents
- Search Patents

★ Labs

- Browse Laboratories
- Browse RDT&E Facilities
- Search RDT&E Facilities

★ Calendar

- View Calendar Events
- Browse Calendar Events
- Search Calendar Events

★ Success Stories

- Browse Success Stories
- Search Success Stories

★ Related Links

- Browse Related Links



Sponsored Under Grant
N00014-01-1-0927

© 2002, 2004 by [West Virginia High Technology Consortium Foundation](#).
All rights reserved. Disclaimer.

<http://www.navytechmatch.com/DOD/index.asp>



Other Collaboration Opportunities

- ONRG Adjunct S&E program
 - military (active/reserve)
 - gov't employee
 - IPA
 - gov't contractor
 - grantee

Office of Naval Research Global

Collaboration Opportunities

[Adjunct Scientist & Engineers Program Guidelines](#)
Learn how you can become a temporary or part-time member of the ONR Global Team

[Science and Technology Engagement Program Guidelines and Proposal Format \(Formerly known as Visitor Support Program\)](#)
Learn how ONR Global can assist your R&D efforts in Scientist-to-Scientist collaboration.

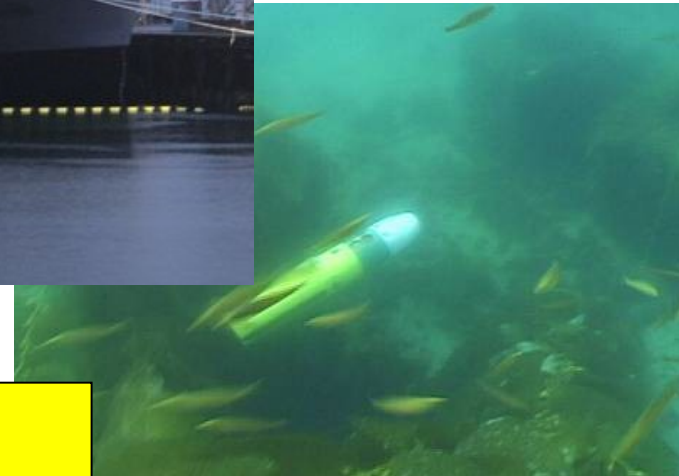
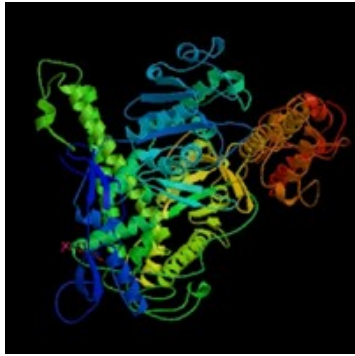
[Conference Support Guidelines and Proposal Format](#)
Learn how ONR Global can assist in supporting your conference/workshop to increase collaboration in R&D/S&T

Naval International Cooperative Opportunities In Science & Technology Program (NICOP)

- [US Guidelines](#)
- [Non US Guidelines](#)
- [NICOP QUICKLOOK \(NEW\)](#)
- [NICOP Award History](#)

<http://www.onrglobal.navy.mil/about/collaboration>

Naval Research delivers...



"... scientific research... related to the maintenance of future naval power, and the preservation of national security.... "